

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016694**Date Inspected:** 12-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 10AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA072-001, Edge Plate to Side Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1, UT repair for CWR1901.

Segment 10BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10L-005, top Counter Weight Connection Plate. The welder is identified as #044551 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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Segment 10CW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10L-008, bottom Counter Weight Connection Plate. The welder is identified as #053486 and was observed welding in the 1G (overhead) position using approved Welding Procedure Specification WPS-B-T-2231-TC-U4b-FCM-1.

Segment 10BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA076-005, Edge Plate to Side Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1, UT repair for CWR1901.

Segment 10BW/10CW

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of removed fit up plates along the exterior of the Side Plate transverse CJP splice. The welder is identified as #040656 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR1835.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Wang Li Yang and Shi Lie. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 10BE/10CE

This QA Inspector observed fit up of the Side Plate transverse CJP splice, bike path side.

Segment 10AW/10BW

This QA Inspector observed ABF personnel performing Ultrasonic Testing and Magnetic Particle Testing on the Deck Plate transverse CJP splice.

Segment 10AE/10BE

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on the Side Plate WT stiffener hold back fillet welds, bike path side.

QA Verification

Lift 9 East:

This QA Inspector observed ZPMC personnel performing Final Bolt tension verification on A325 high strength bolts on the following components:

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Bottom Plate WT stiffener splice plates

Bolts verified:

M22x70 Lot Number DHGM220028 (440 N.m.)

Approved Torque Wrench X02-666 was used.

This QA Inspector witnessed ZPMC personnel performing turn of nut Final Bolt tension with the use of a pneumatic impact wrench on A325 high strength bolts; access was restricted due to Side Plate WT stiffener and LD.

Retro Fit Plates at LD and 1st Side Plate WT stiffener:

Bolts verified:

M24x85 Lot Number DHGM240019 (550 N.m.)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By: Hernandez,Dan

Quality Assurance Inspector

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Reviewed By: Peterson, Art

QA Reviewer